

BD Buoyancy Compensator



User's Manual

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TRADEMARK NOTICE

Aqua Lung[®] is a registered trademark of Aqua Lung America, Inc.

Warnings, Cautions and Notes:

Pay special attention to information provided in Warnings, Cautions and Notes that are accompanied by one of these symbols:



A WARNING indicates a procedure or situation that, if not avoided, could result in serious injury or death to the user.



A CAUTION indicates any situation or technique that could cause damage to the product and could subsequently result in injury to the user.



A NOTE is used to emphasize important points, tips, and reminders.

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SAFETY INFORMATION

General Precautions and Warnings

This manual provides essential instruction for the proper fitting, adjustment, inspection and care of your new BC. Because Aqua Lung is utilizing patented BC technology, it is very important to take the time to read these instructions in order to understand and fully enjoy the features that are unique to your specific model. Improper use of this BC could result in serious injury or death.

Before using this buoyancy compensator (BC), you must receive instruction and certification in SCUBA diving and buoyancy control from a Military or government operated diving school (or any recognized certification agency). Use of SCUBA equipment by uncertified or untrained persons is dangerous and can result in injury or death.

Read this owner's manual completely before attempting to use your BC, and become familiar with it first in a controlled environment such as a swimming pool, in order to weight yourself properly and to become comfortable with using its many features and adjustments.

Before every dive, perform a complete pre-dive inspection according to the procedure prescribed in this manual, to ensure that all components are functioning properly and no signs of damage or leaks are present. If you find that your BC is not functioning properly or is damaged, remove it from service until it can be repaired by an Authorized Aqua Lung Dealer or Distributor.

Your BC is not a lift bag. **DO NOT** use it to bring heavy objects to the surface. Doing so may cause permanent damage to the BC, and could also result in serious injury or death due to arterial gas embolism or decompression sickness.

In an emergency such as an out of air situation or uncontrolled descent, it is important to remove and jettison weight immediately. **DO NOT** depend solely on using your BC power inflator to lift you to the surface.

In the event of an uncontrolled, rapid ascent, it is important to immediately begin venting air from the BC. Continue venting air to slow your ascent rate if neutral buoyancy cannot be reestablished.

DO NOT inhale from your oral inflator. The BC may contain harmful contaminants or gases, which could cause suffocation or injury.

Factory prescribed service for this BC must be performed at least once annually by a factory trained technician who is employed by an Authorized Aqua Lung Dealer or Distributor. Annual service consists of a complete overhaul of the power inflator, and a general air leak inspection of the bladder and valve connections.

Disassembly, repair, or lubrication must not be attempted by persons who are not factory trained and authorized by Aqua Lung. Unauthorized service will render the warranty null and void.

This BC is designed for use with compressed air or Nitrox/EAN (enriched air nitrox) mixtures not exceeding 40% oxygen. Any use of gas mixtures with increased oxygen content or the addition of helium or other substances may cause corrosion, deterioration and/or premature aging of the BC leading to component failure of the metal and rubber parts. The component failures could lead to a loss of buoyancy control and/or pressure integrity of the BC resulting in injury or death. Non-standard breathing mixtures may also present a risk of fire or explosion. The use of Nitrox/EAN requires additional training. Failure to observe this warning may result in injury or death. Use only nitrogen/oxygen mixtures containing no more than 40% oxygen.

CE Conformity - This BC has successfully passed all the tests required by the EN 1809 standard.

TEMPERATURE LIMITATIONS: This BC should be used in temperatures no lower than -4°F (-20°C) and no higher than 150°F (65°C).



WARNING: This is NOT a life jacket: It does not guarantee a head-up position of the wearer at the surface. It is not designed to provide face-up flotation in all situations; therefore it does not meet U.S. Coast Guard regulations for a life preserver or personal flotation device (PFD). If you become unconscious in the water without a buddy present to immediately give assistance, you may suffer serious injury or death from drowning.

If you have questions related to the testing of this product, please contact Institut National de Plongee Professionnelle (INPP) at the number or address listed below:

Institut National de Plongee Professionnelle (INPP) Entrée n° 3 - Port de la Rouge - BP 157 - 13267 Marseille - France Telephone +33 496 140 940

DEALER INSPECTION AND SERVICE



WARNING: DO NOT attempt to perform any disassembly or service of your BC. Service requiring disassembly must only be performed by a factory-trained Aqua Lung technician. To obtain service or repair, such as power inflator service or replacement of the bladder, see an Authorized Aqua Lung Dealer or Distributor.

- 1. It cannot be assumed that the BC is in good working order on the basis that it has received little use since it was last serviced. Remember that prolonged or improper storage can still result in internal corrosion and/or deterioration of o-ring seals and valve springs, as well as bladder seam degradation.
- 2. It is imperative that you obtain prescribed dealer service for your BC at least once a year from an authorized dealer, including a general air leak inspection and complete overhaul of the power inflator and Over Pressure Relief Valve (OPRV). Your BC may require this service more frequently, depending on the amount of use it receives and the environmental conditions it is used in.
- 3. If the BC is used for rental or training purposes in salt, chlorinated, or silted fresh water, it will require prescribed dealer service every three to six months. Use in chlorinated water will greatly accelerate the deterioration of most components, and require more frequent service.
- 4. DO NOT attempt to perform any disassembly or overhaul service of your BC. Doing so may cause the BC to dangerously malfunction, and will render the warranty null and void. All service must be performed by an Authorized Aqua Lung Dealer or Distributor.



MOTE: It is important to obtain prescribed dealer service for your BC at least once annually, from an Authorized Aqua Lung Dealer or Distributor. Your personal safety and the mechanical integrity of your BC depends on it.

ANNUAL SERVICE AND INSPECTION RECORD

Purchase Date:	
BC Model:	
Serial Number:	

BD serial # is located on tag in pocket.



BD serial

WARNING	Disease Vaccous of the State of Supplier on the State of
DANGER (Chapte Templomer at 40 ft. Detropherer in promise have been up to the common of the co
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	ENIGOR

DATE	TECHNICIAN NAME & NUMBER	TECHNICIAN SIGNATURE	STAMP

WARRANTY INFORMATION - MILITARY AND COMMERCIAL

All warranty transactions must be accompanied by proof of original purchase from an Aqua Lung® authorized dealer/agent. Be sure to save your sales receipt, and present it whenever returning your Aqua Lung product for warranty service.

The Aqua Lung® One Year Limited Warranty™

Aqua Lung America warrants to the original purchaser for a period of one year from the date of purchase that the product will be free from defects in material and workmanship; provided that it receives normal use, proper care, and prescribed dealer service subject to those restrictions stated below. This limited warranty is extended only to the original purchaser for purchases made from an authorized Aqua Lung® dealer/agent, and is not transferable. This warranty is limited to repair or replacement only at the discretion of Aqua Lung America, Inc.

ALL WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES, OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO A PERIOD ENDING ONE YEAR FROM THE DATE OF PURCHASE.

AQUA LUNG AMERICA DISCLAIMS AND EXCLUDES ANY LIABILITY FOR INCIDENTAL, OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW EXCLUSIONS OF LIABILITY, SO THIS MAY NOT APPLY TO YOU.



WARNING: It is dangerous for untrained and uncertified persons to use the equipment covered by this warranty. Therefore, use of these products by an untrained person renders any and all warranties null and void. Use of SCUBA equipment by anyone who is not a certified diver, or receiving training through a Military or government operated diving school (or any recognized certification agency), shall render void all warranties, expressed or implied.

Restrictions

The following restrictions apply to this warranty:

- This warranty extends to inflator parts, and to the seams of the bladder.
 Factory prescribed annual service by a trained technician is required.
- This warranty does not extend to abrasion, punctures, or tears of the bladder, or seam separation caused by chemical attack; including prolonged exposure to chlorine.
- This warranty does not extend to damages caused by improper use, improper maintenance, neglect, unauthorized repairs, modifications, accidents, fire, or casualty.
- Cosmetic damage, such as scratches, fraying, and nicks are not covered by this warranty.
- This warranty covers products purchased in the United States. For warranties that may apply elsewhere, please contact your local representative.
- Failure to meet any of the above requirements will render the warranty null and void.



WARNING: Failure to maintain this equipment and perform the required Aqua Lung America, Inc. factory maintenance in accordance with the factory manual renders any and all warranties expressed or implied, null and void.

FEATURES

Adjustable Waistband - Nut and Bolt System

The BC waistband is adjustable to three different sizes through the nut and bolt system. This adjustment system allows divers to customize the BC to accommodate different diving environments and exposure suit options.

Chest Strap

The chest strap fits across your sternum and keeps the shoulder straps from slipping to the sides, ensuring a comfortable and secure fit. The chest strap has the option of being removed for those divers who find it unnecessary.

Cummerbund with Quick Release Clip

The BC waistband has a simple to use cummerbund with quick release clip. Waistband D-rings allow for ease of adjustment by simply pulling the D-rings to the side for a secure fit.

Hook and Loop Weight Pockets

The integrated weight system has two pockets that will each hold up to 16 lbs. of releasable weight. A hook and loop system on the pockets/BC will hold the releasable weight securely in place. The two rear trim pockets will each accommodate an additional 5 lbs. of non-releasable weight

SureLock™ Weight Pockets

The SureLock weight system has two pockets that will each hold up to 16 lbs. of releasable weight. A mechanical release system allows the SureLock pockets to be inserted easily into the BC and "click" securely into place.

Trim Pockets (Non-Ditchable Weight)

Two rear trim pockets on the harness (one on each side) will accommodate an additional 5 lbs. of non-releasable weight. The weights are secured in the pockets with a simple clip system.

Universal Cylinder Band

A universal cylinder band allows for quick and easy adjustment when securing your cylinder. The cylinder band will accommodate all standard size cylinders and will fit all current Aqua Lung BC's that accept a cylinder band.

Angled D-rings

Five angled stainless steel D-rings are located throughout the BC for attachment of extra equipment.

Powerline Inflator and Universal Pull Dump

The weather-proven Powerline inflator with rapid exhaust valve (REV) is included on the BD. A universal pull dump is attached to the rear of both right / left lower lobes and the upper right shoulder. The universal pull dump valves give you an additional option of releasing air from the BC.

Drop Down Utility Pocket

A drop down utility pocket (located on left side) provides additional space for dive accessories such as lights, masks and emergency signaling devices. The pocket can be rolled up when not in use. A secondary pocket is located on the right side of the BD.

Knife Grommets

Located on the left side pocket are two knife grommets which can accommodate an optional knife.

Self-Adjusting Lumbar Support (SLS)

The self-adjusting lumbar support system allows the diver to adjust the position of the lumbar pad on the harness for maximum comfort.

BASIC SETUP

Aqua Lung recommends that you bring your buoyancy compensator, together with your regulator, to your Authorized Aqua Lung Dealer or Distributor for the installation of the MP inflator hose and other accessories. The retailer can also answer any questions you may have pertaining to the information in this manual.



PNOTE: The terms "Hook & Loop" are used throughout this manual. Hook & Loop is commonly known as Velcro®, which is a trademarked brand of hook & loop. Some of the BC components have hook & loop attachments, including the cylinder band, weight pouch flaps, pockets and inflator hold down.

If it is not possible to return the BC with your regulator to your authorized dealer, you may install the MP quick disconnect inflator hose by carefully performing the steps in the following procedure.

ATTACHING THE MP HOSE TO THE FIRST STAGE

1. Remove the inflator hose from the power inflator body by gripping the grooved sleeve over the quick disconnect coupling with your thumb and forefinger. Slide the sleeve back.



2. Remove the port plug from a MP port on the regulator using an appropriately sized wrench.





WARNING: DO NOT connect the inflator hose to a high pressure (HP) port (greater than 200 psi / 14 bar). This may cause the hose to burst when pressurized, which can result in serious injury. If you are unsure which regulator port is medium pressure (MP) or high pressure (HP), consult your regulator owner's manual or your dealer before attaching the hose.

3. Check to ensure the o-ring is present and in good condition. Screw the threaded end of the hose into the port and tighten to 40 in-lbs. (4.5 Nm) with a 9/16" crowfoot and torque wrench.



THREADING THE CAM BUCKLE

Your BC ships from the factory with the cylinder band already threaded, but in the event it becomes unthreaded, please follow the directions below:

1. Firmly grasp the metal D-ring with your left hand.



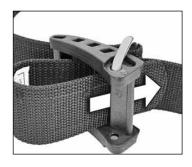
2. While firmly holding the metal D-ring, rotate the back towards the webbing. The buckle should form an angle with the metal D-ring as shown in the top view.



3. Insert band through the metal D-ring, then through the middle slot of the buckle.



4. Weave band through the inside slot of the buckle.



5. Insert band through the outer slot of the buckle.



NOTE: This final threading step is done when the BC is secured by the cylinder buckle halfway to prevent the webbing from slipping and the free end of the cylinder band is thread through the open slot in the end of the buckle. This procedure is done in **Securing the Cylinder Band** section of the manual.

SECURING THE CYLINDER BAND



ROTE: BC cylinder bands adjust for all standard cylinder diameters: 6.9 in (17.5 cm), 7.25 in (18.5 cm), and 8.0 in (20.3 cm). The cylinder bands are properly threaded to the buckles when the BC leaves the factory. If rethreading is necessary, follow the procedure in the section: Threading the Cam Buckle.



WARNING: The cylinder band will initially stretch as it becomes wet. Always wet the band before making the final adjustment; apply enough tension to ensure that the cylinder is completely secure. Test this connection before every dive. If the cylinder slips free from the BC during the dive, you may loose your air supply, which could lead to serious injury or death.



NOTE: Your BC comes equipped with a tank positioning strap. This strap allows you to place the BC in the proper position for perfect tank placement. Place the tank positioning strap over the cylinder valve to hold the BC in place.



1. Remove the free end of the cylinder band from the outer slot on the cam buckle.



- **2.** Wet the cylinder band and then slide it over the cylinder so that the BC is at the desired position in relation to the cylinder valve. Make sure the cylinder valve air outlet is facing the back of the BC.
- **3.** While holding the cylinder secure, pull the free end of the cylinder band until there is a very tight fit between the pack and the cylinder.



4. Close the buckle half way to hold the cylinder band taut, and thread the free end of the band through the open slot in the end of the cam buckle.



- **5.** Pull the cam buckle closed so that it lies flat against the cylinder. Secure the end of the cylinder band with the hook & loop attachment.
- **6.** Check that the cylinder band is secure by pulling on the band while holding down the cylinder at the valve. If the cylinder band moves, it is too loose. Repeat steps 1-5 to tighten and secure the cylinder band.

DONNING AND ADJUSTMENT PROCEDURES

- Remove the weight pouches from the BC.
- 2. Disconnect the waist buckle and cummerbund.
- Ensure that the guick release buckles on both torso straps are securely 3. fastened. While firmly holding the torso strap where it connects to the BC lobe, fully extend each torso strap to its maximum length by pushing straight up on the slide buckle.
- While your dive buddy lifts and holds the BC/cylinder behind you, place 4. your arms through the BC torso straps as if you were putting on a jacket.
- 5. While your buddy continues to hold the cylinder, connect the cummerbund and waist buckle. The weight of the cylinder should rest on the lumbar region (lower part) of your back.
- 6. Connect the chest strap buckle. Pull on the free end of the strap to tighten. The chest strap should feel comfortable across the chest; it should not be overtightened so that it feels restrictive.
- After your buddy has released the cylinder and the BC feels comfortably 7. supported on your hips and shoulders, bend forward at the waist and adjust the torso straps to a comfortable length by pulling on the torso strap D-rings.



NOTE: Adjusting the shoulder straps too tightly will transfer the cylinder weight from the hips to the shoulders, restricting your arm movement and decreasing comfort.

8. If necessary, readjust the waistband and waist buckle so that they are comfortably snug, but not restricting.

ADJUSTING THE WAISTBAND LENGTH - NUT AND BOLT SYSTEM

Your BC waistband is connected to the harness with two stainless steel nut and bolt combinations. There are three positions that allow you to lengthen or shorten the waistband, with the outer grommets being the longest setting. If necessary, the waistband can easily be remounted onto one of three grommet attachment points by performing the following procedure:

- 1. Disconnect the chest strap buckle, shoulder strap buckles, waist buckle and cummerbund.
- **2.** To remove the bolts which fasten each section to the harness, hold the nut with a 3/8" box wrench and unscrew the bolt with a medium sized Phillips screwdriver.



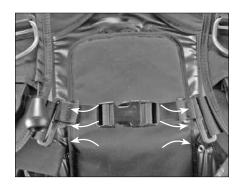
3. Align the grommet holes in the waistband with the holes in the harness. Insert the bolt through the front of the harness, through the waistband, and thread the nut onto the bolt from behind the waistband. Hold the nut securely with a 3/8" box wrench and tighten the bolt with a medium size Phillips screwdriver.



4. Don the BC over your exposure suit to check the fit.

ADJUSTING THE CHEST STRAP

The chest strap fits across your sternum and keeps the shoulder straps from slipping to the sides, ensuring a comfortable and secure fit. Before donning the BC, loosen and disconnect the chest strap. After donning the BC, connect the chest strap and tighten by pulling on the free ends of the straps. The chest strap should feel comfortable across the chest; it should not be overtightened so that it feels restrictive. Once the shoulder straps are in position, adjust the shoulder strap length by pulling down on the D-rings until the BC fits comfortably. Your BC offers a vertical adjustment of the chest strap. Become familiar with the adjustment of this strap so that you can perform this adjustment in the water if necessary.



REMOVABLE CHEST STRAP

The chest strap on your BC is removable. To remove the chest strap, unweave the straps from the male and female parts of the chest buckle. For each strap, pull the free end through the plastic rings connected to the strap. Pull the strap through the plastic rings that are connected to the BC.

POSITIONING THE SELF-ADJUSTING LUMBAR SUPPORT (SLS)

For optimum comfort, the Self-adjusting Lumbar Support (SLS) should be positioned so it fits in the natural arch of your lower back.

- 1. Disconnect the cummerbund.
- 2. Lift up lumbar pad and adjust up or down on the harness.
- 3. Secure loop material on the lumbar pad to hook material on harness to retain position.
- Try on BC to make sure SLS is positioned 4. properly. Adjust as necessary.



WEIGHT INTEGRATION FEATURES

Your BC comes equipped with either a Hook and Loop or SureLock Integrated Weight System. The SureLock weight pouches are secured with a mechanical locking mechanism. The Hook and Loop weight pouches are secured with hook material on the pouches to loop material on the pockets. Either weight system supplements or replaces a conventional weight belt. This unique feature allows you to quickly jettison either one or both weight pouches in the event of an emergency, thereby maintaining better control over your rate of ascent. The weight pouches can be easily reloaded into the BC pockets while you are wearing the BC.







Hook and Loop Pouch



POTE: It is very important to read the following instructions and become thoroughly familiar with the correct methods for installing and releasing weight before you dive with your BC.

Maximum Weight Capacity

The SureLock weight system features two interchangeable weight pouches which can be filled with either block weights or "soft weight" (pouches containing lead shot), in increments of 4 pounds or less. For ease of operation, low-profile block weights are strongly recommended. Refer to the **BD Weight Capacity Chart** for maximum weight capacity.





WARNING: The lift capacity may not exceed the weight pouch carry capacity. The negative buoyancy of the weight plus the negative buoyancy of the cylinder (when full), should not exceed the BC's positive buoyancy. The inability to achieve neutral buoyancy while at depth or positive buoyancy on the surface may lead to a hazardous situation that could lead to serious injury or death. Refer to the model-specific label, usually found in the pocket of your BC, to find the designated lift capacity, and load weight pouches accordingly (see photo above).



NOTE: Your BC may not be able to float by itself on the surface if your BC is loaded with weight at or near its maximum buoyancy. In water, the weight of cylinders and other equipment may contribute to negative buoyancy of your full set of SCUBA equipment.

BD Weight Capacity Chart

		BD	
BC Size	Trim Weight	Releasable Weight	Weight Pocket Type
S	10 lb/4.5kg	32 lb/14.5kg	16 lb/7.25 kg X 2
М	10 lb/4.5kg	32 lb/14.5kg	16 lb/7.25 kg X 2
ML	10 lb/4.5kg	32 lb/14.5kg	16 lb/7.25 kg X 2
L	10 lb/4.5kg	32 lb/14.5kg	16 lb/7.25 kg X 2
XL	10 lb/4.5kg	32 lb/14.5kg	16 lb/7.25 kg X 2

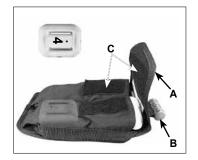


WARNING: The non-releasable (trim) weight pockets are intended strictly for containing non-releasable weight, used in addition to releasable weight. Do not fill either pocket with weight unless you are certain you can achieve positive buoyancy at depth by releasing your weight pouches or weight belt while your BC is completely deflated.

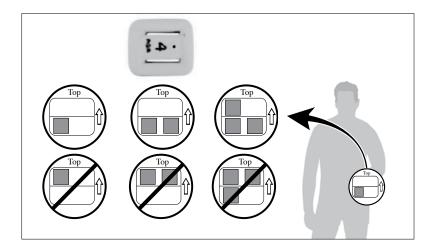
Loading Weight Into the Weight Pouches

The amount of weight each pouch will hold and the process for loading the pouch is the same for either Hook and Loop or SureLock version pouches. Aqua Lung recommends that each pouch is loaded with equal amounts of weight for optimum balance, preventing the tendency to roll to one side during the dive. Also, it is strongly recommended that each weight pouch is fully loaded with four separate block weights. For example, if you want to load a 16 lb. pouch with 16 pounds of weight, use four separate 4 pound blocks.

Lift up each pouch's flap (a), and lay it back over the handle (b). While holding the pouch fully open, insert the weight (horizontally) into the upper and lower weight compartments, then close the flap. When each pouch has been loaded with weight, firmly run your hand over the flaps to securely fasten the hook & loop (c).



Aqua Lung recommends that the pouches be completely filled with four separate block weights (two per compartment); however, if you need to partially fill the pouch, load the bottom compartment first. Use the diagram for proper weight placement.



Loading Soft Weight Into the Weight Pouches

Agua Lung recommends block weights be used in the weight pouches for the best fit and ease of insertion. Soft weights may be used, but it is critical that the weights be loaded and secured correctly. The procedure for loading soft weights is the same as block weights, but it is important to ensure the soft weights are completely fitted into the weight pouch. This will ensure that the weight pouch is properly engaged and secured in place.





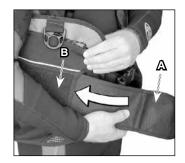
NOTE: Some weight pouches are specially pre-formed to fit the contour of your waist. Do not attempt to bend or straighten a pre-formed pouch.

Installing the Hook and Loop Weight Pouches



CAUTION: Aqua Lung strongly recommends that you do not attempt to don your BC when it is fully loaded with weight. You may otherwise risk injury due to muscle strain or a temporary loss of balance.

The hook and loop pouches are installed with the smooth panel facing outward. To install either pouch, slide the closed end of the pouch into the opening of the pocket. Fold the retaining flap (a) over the loop material (b) and firmly run your hand over the flap to securely seal the hook and loop of the weight system.



Installing the SureLock™ Weight Pouches

The SureLock pouches are installed with the smooth panel facing outward (pouch flap facing toward the BC). To install either pouch, slide the closed end of the pouch into the opening of the pocket. Insert the male portion of the SureLock buckle (a) into the female receptacle (b) on the BC until you can hear and feel it "click" into place.





WARNING: Before every dive, it is important to make sure each weight pouch is secured, in order to prevent the pouches from falling out. Involuntary release of both weight pouches underwater can cause a sudden increase in buoyancy causing a rapid ascent, which could lead to serious injury or death due to arterial gas embolism, decompression sickness, or drowning.



WARNING: Ensure the soft weight is inserted all the way into the pouch. If any portion of the soft weight is protruding out of the weight pouch, it can prevent the pouch from being properly secured. Involuntary release of both weight pouches underwater can cause a sudden increase in buoyancy causing a rapid ascent, which could lead to serious injury or death due to arterial gas embolism, decompression sickness, or drowning.



Releasing the Weight Pouches

Unlike a weight belt, which has only one release mechanism, each weight pouch is connected to the BC independently of the other and must be released separately. This provides you with the option of being able to jettison one pouch at a time, thereby maintaining better control of your ascent rate in an emergency.

In the event that you need to jettison weight, simply pull the release handle of each pouch towards the center of the waistband. When the pouch is completely disengaged from its holster, hold it out and away from your body before dropping it.

Weight pouch release procedures are the same for both Hook and Loop and Surelock weight systems.



WARNING: Ensure that your weight pouches are not obstructed by any straps, lines, etc. DO NOT add weight to the BC pockets, as this may interfere with the removal of the pouches in an emergency. Failure to ditch weight in an emergency may lead to serious injury or death due to drowning.





WARNING: To avoid injuring other divers, always look below you before dropping weight.



PNOTE: In addition to becoming familiar with the weight system yourself, it is very important to explain its function to your dive buddy so that he/she is equally familiar with it.

Non-Releasable Weight

To supplement the releasable weight, the BD is designed to carry non-releasable (trim) weight in two fixed pocket locations.

To install weight into the non-releasable weight pockets, simply disconnect the flap buckle, slide in the block weight, fold the flap over the pocket, and reconnect the buckle. Weight should be added to the non-release (trim) pockets after the BC has been secured to the cylinder.

The non-releasable weight pockets are designed to hold single rectangular block weights. To avoid accidental loss of weight, Aqua Lung strongly advises against using small bullet-shaped weights and shot weight.

Refer to the **BD Weight Capacity Chart** for maximum non-releasable weight capacity.

Because the weight is non-releasable, it must not be used as your primary source of ballast. After filling the fixed pockets with weight, it is extremely important to check your buoyancy in the water while wearing the BC attached to a fully charged cylinder and your exposure suit. While standing in chest deep water, deflate the BC completely and check to ensure that you can easily achieve positive buoyancy by jettisoning your releasable weight.





WARNING: The non-releasable weight pockets are intended strictly for containing non-releasable weight, used in addition to releasable weight. Do not fill either pocket with weight unless you are certain you can achieve positive buoyancy at depth by releasing your weight pouches or weight belt while your BC is completely deflated.

INFLATION METHODS

Your BC has been fitted with a Powerline inflator. This section covers inflation using this system.

Power Inflation

For the power inflator to operate, the MP inflator hose must be connected. To connect the MP hose, grip the grooved sleeve at the connection fitting with your thumb and forefinger and slide the sleeve back. Place the fitting over the quick disconnect fitting (c), and firmly push inward while releasing the sleeve. Check to ensure that the hose is securely attached. After the hose is attached to the power inflator, pressurize the first stage regulator by slowly opening the cylinder valve.

The working pressure of the Powerline inflator is as follows: 103 PSI (7 BAR) minimum - 294 PSI (20 BAR) maximum.

To inflate your BC with medium pressure air, depress the power inflator button (d). Do not hold the inflator button depressed continuously underwater, as this could cause you to become excessively buoyant. Instead, depress the button in short bursts until you become neutrally buoyant.

Oral Inflation

To orally inflate your BC, place your lips on the oral inflator mouthpiece (a) and exhale a small amount of air into the mouthpiece to purge any water that may still be in the housing. While continuing to exhale into the mouthpiece, depress the oral inflator button (b) to inflate the BC. Immediately after exhaling, release the oral inflator button to prevent air from escaping.





WARNING: Do not rely on the power inflator as the only means to inflate your BC. It is important to practice the technique for orally inflating your BC so that you are prepared for any type of malfunction or out of air situation that could render the power inflator inoperable. You may otherwise be unable to achieve positive buoyancy in an emergency, which could lead to serious injury or death.

DEFLATION METHODS

Throughout the course of a dive, it will be necessary to release air from the BC using one of the three methods described in the following instructions. Each method uses a valve that is in a different location. The method you choose at any time may depend on whether you are making your initial descent feet first, headfirst, or maintaining neutral buoyancy underwater. Always remember to utilize the valve that is at the highest point on the bladder, depending on your position in the water.

Deflation Via the Oral Inflator

To deflate the BC using the oral inflator, lift the inflator body to its highest possible position (above the head). Press the oral inflator button (a) to start venting air. This method is most effective on the surface when starting the initial descent.



Deflation Via the Inflator Dump Valve

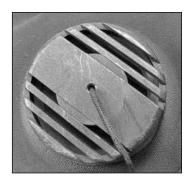
Inside the power inflator's hose is a cable that attaches the lower power inflator assembly to the Rapid Exhaust Valve (REV) at the top of the airway assembly. You can vent air from the BC by firmly pulling straight down on the lower power inflator assembly. Once resistance is felt, only 1/4" of pull is needed to open the REV (Excessive force is not needed). The REV provides an effective and convenient way to vent air from the BC while in either an upright or facedown swimming position.



Deflation Via the Universal Pull Dump / Over Pressure Relief Valve (OPRV)

Your BC comes equipped with three universal pull dumps / over pressure relief valves (OPRV), one on the right shoulder, one on the lower rear right and one on the lower rear left side of the BC. Their primary function is to relieve excess air pressure inside the bladder. A knob and cord assembly is attached to the dump valve; this can be pulled to manually release air from the BC.

To dump air as quickly as possible, always use the dump valve at the highest point in the water column. For example, either lower rear valve works best while making a head-first descent, or swimming in a facedown position; the right shoulder valve works best when in an upright position.



Universal Pull Dump / OPRV

SPECIAL FEATURES

Knife Grommets

Your BC has two grommet holes designed to accept many of the specialty BC knives available from Aqua Lung. For information on available knife models, consult with your Aqua Lung Authorized Dealer or Distributor. To attach or remove the knife and sheath from the BC, refer to the instructions provided with the knife.



Drop Down Utility Pocket

Your BC has a drop down utility pocket on the left side to provide additional space for dive accessories such as lights, masks, emergency signaling devices to be stored securely. A secondary pocket is located on the right side of the BC.



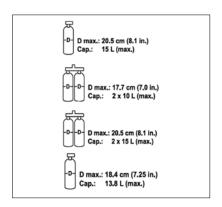
Double Cylinder Setup - Using Aqua Lung Twin Tank Kit

The Twin Tank Kit (PN 427042) allows mounting of twin cylinders to your BC. Please see mounting instructions provided with the kit.

Before adapting your BC for use with twin cylinders, it is important to compare the lift capacity of your particular BC size and model with the buoyancy specifications of the cylinders, the amount of weight you will carry, and the type of exposure suit you will wear.

Your BC's backpack may also have certain weight limitations, as twin cylinders vary in both size and weight. To ensure your safety, refer to the tag located on the inside BC pocket prior to attaching twin cylinders to confirm the approved twin cylinders for your particular backpack.







WARNING: When fully charged and worn together as twins, some cylinders may create enough negative buoyancy to counteract the amount of lift your BC can provide. At depth, this can lead to a dangerous situation if your wetsuit becomes compressed and you can no longer achieve positive buoyancy by jettisoning weight. The excess weight of some twin cylinders may also lead to structural failure of the backpack. Such an event while diving may separate you from your primary air source, and could lead to serious injury or death.

PRE-DIVE INSPECTION



WARNING: Before each use, the BC must be given a thorough visual inspection and functional test. NEVER dive with a BC that shows signs of damage to its bladder or valves until it has received a complete inspection and service.

- 1. Visually inspect the BC, all straps and buckle assemblies.
- 2. Connect the power inflator to a source of clean, compressed air via the MP quick disconnect hose. Depress and release the inflator button intermittently to ensure that the airflow is unobstructed, and that the airflow stops completely when the button is released.
- 3. Manually operate each over pressure relief valve (OPRV) by pulling on the attached knob and cord to release air from inside the BC, and then fully inflate the BC until the OPRV opens. Examine the operation of the OPRV by repeatedly inflating the BC to ensure that it opens to relieve excess pressure, yet closes immediately afterward to allow the bladder to remain taut and fully inflated.
- 4. Check the function of the oral inflator button to ensure a rapid and unobstructed exhaust. Fully inflate the BC once again and manually exercise the Rapid Exhaust Valve (REV) by pulling down on the lower power inflator assembly. Once resistance is felt, only 1/4" of pull is needed to open the REV (Excessive force is not needed). Ensure the REV opens to release air from the BC, yet closes immediately to retain existing air. Fully inflate the BC once again, disconnect the power inflator from the compressed air supply and listen closely for any leaks. Let the BC stand for ten minutes to ensure firmness before deflating.



WARNING: If you can hear any leaks, or if the bladder begins to deflate within 10 minutes, DO NOT attempt to use the BC until it has received a complete inspection and service.

- **5.** Make a final check of the cylinder band's tension to ensure that it has not loosened due to stretching. Retighten if necessary.
- **6.** Before entering the water, check both weight pouches to ensure that they are correctly fastened to the BC.



WARNING: Loss of the releasable weight pouches can occur if they are not properly secured. Involuntary release of both weight pouches can cause a sudden increase in buoyancy causing a rapid ascent, and could lead to serious injury or death due to arterial gas embolism, decompression sickness, or drowning.

POST-DIVE INSPECTION



CAUTION: Avoid prolonged exposure to direct sunlight and extreme heat. Nylon fabric can quickly fade when exposed to the sun's ultraviolet rays, and extreme heat may damage the welded bladder seams.



CAUTION: Avoid repeated or prolonged use in heavily chlorinated water, which can cause the BC fabric to discolor and decay prematurely.



CAUTION: Do not allow the BC to chafe against any sharp objects or rough surfaces that could abrade or puncture the bladder. Do not set or drop heavy objects such as block weights on the BC.



CAUTION: Avoid any contact with oil, gasoline, aerosols, or chemical solvents.

To preserve the life of the bladder, rinse it inside and out with fresh water after every day of use, using the following procedure:

1. Remove the inflator from the BC by unscrewing the collar at the base of the elbow. Pressurize the power inflator with Medium Pressure (MP) air, via the quick disconnect hose and thoroughly rinse the inflator assembly with fresh water. Hang the inflator (dump valve end down) to allow complete drainage and drying.



CAUTION: Before rinsing, ensure that the inflator is pressurized with air. This will prevent debris and contaminants from entering the valve mechanism if the inflator button is accidentally depressed.

- Direct fresh water into the inflator connector of the BC until the bladder is 1/4 full. Thoroughly shake the bladder so the water rinses the entire inside of the bladder.
- 3. Remove the OPRV's, rinse thoroughly. Allow the water to drain out of the bladder. Remove weight pouches from pockets and rinse along with the exterior of the BC. Allow BC and components to dry overnight.
- **4** Ensure no water remains inside the bladder. Reinstall OPRV's, inflator and weigh pockets. Inflate the BC and check for leaks.
- **5.** Store the BC partially inflated in a clean, dry area away from extreme temperatures: no greater than 120°F/49°C and no less than 0°F/-18°C.

NOTES

BD Buoyancy Compensator User's Manual



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